

Title (en)  
A CONTROLLER AND A METHOD TO DETERMINE A SWIM STROKE

Title (de)  
STEUERUNG UND VERFAHREN ZUR BESTIMMUNG EINES SCHWIMMANFALLS

Title (fr)  
DISPOSITIF ET PROCÉDÉ POUR DÉTERMINER UN MOUVEMENT DE NAGE

Publication  
**EP 4205100 A1 20230705 (EN)**

Application  
**EP 21748872 A 20210722**

Priority  
• IN 202041037034 A 20200828  
• EP 2021070594 W 20210722

Abstract (en)  
[origin: WO2022042962A1] The controller (110) connected to receive input signals (120) from at least one accelerometer (102). The controller (110) comprises an interface (104) facilitating input and output pins/ports, a filter module (106) to filter the input signal (120) from at least one accelerometer (102). The controller (110), characterized by, a stroke segmentation module (108) adapted to determine at least two parameters comprising a first parameter (208) and a second parameter (210) from said filtered signal (122), generate an envelope signal (206) using the at least two parameters and the filtered signal (122), and determine the swim stroke of the swimmer based on the filtered signal (122) and the envelope signal (206). Further, an activity detection module (112) is used in combination with the stroke segmentation module (108). The present invention obtains the stroke segments based only on the inputs signals from at least one accelerometer (102), providing reduced cost and complexity.

IPC 8 full level  
**G09B 5/06** (2006.01); **A61B 5/00** (2006.01); **A61B 5/11** (2006.01); **A63B 69/00** (2006.01); **A63B 71/06** (2006.01)

CPC (source: EP US)  
**A61B 5/1114** (2013.01 - EP); **A61B 5/1123** (2013.01 - EP); **A61B 5/7225** (2013.01 - EP); **A63B 24/0003** (2013.01 - US); **A63B 24/0062** (2013.01 - US); **G09B 5/06** (2013.01 - EP); **A61B 5/681** (2013.01 - EP); **A61B 5/7203** (2013.01 - EP); **A61B 5/7264** (2013.01 - EP); **A61B 2503/10** (2013.01 - EP); **A61B 2562/0219** (2013.01 - EP); **A63B 2024/0071** (2013.01 - US); **A63B 2220/40** (2013.01 - US); **A63B 2220/836** (2013.01 - US); **A63B 2225/60** (2013.01 - US); **A63B 2244/20** (2013.01 - US)

Citation (search report)  
See references of WO 2022042962A1

Designated contracting state (EPC)  
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)  
BA ME

Designated validation state (EPC)  
KH MA MD TN

DOCDB simple family (publication)  
**WO 2022042962 A1 20220303**; CN 116018091 A 20230425; EP 4205100 A1 20230705; JP 2023549625 A 20231129; US 2023321488 A1 20231012

DOCDB simple family (application)  
**EP 2021070594 W 20210722**; CN 202180052558 A 20210722; EP 21748872 A 20210722; JP 2023513854 A 20210722; US 202118043152 A 20210722